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ABSTRACT

This annual review is a synthesis of the West Virginia Division of Technical and Adult Education Services programs and plans at the conclusion of fiscal year 1991. It begins with letters from the State Superintendent of Schools and Assistant State Superintendent. West Virginia Board of Education mission and goals and the division's programmatic and instructional goals follow. A series of 12 exemplary programs are then described. The selection process and rigorous criteria associated with the West Virginia Vocational School of Excellence award is described, and the vocational technical students in the West Virginia Governors' Honors Academy are designated. The next section details instructional programs to help students succeed. These vocational education areas are represented: agricultural, business, consumer and homemaking/occupational home economics, marketing, diversified cooperative training, technology, health occupations, and industrial and technical. The following and largest section describes special programs, projects, and services to help students succeed, including personnel development activities. The concluding component of the review is an item-by-item depiction of vocational enrollments and vocational placements. (YLB)

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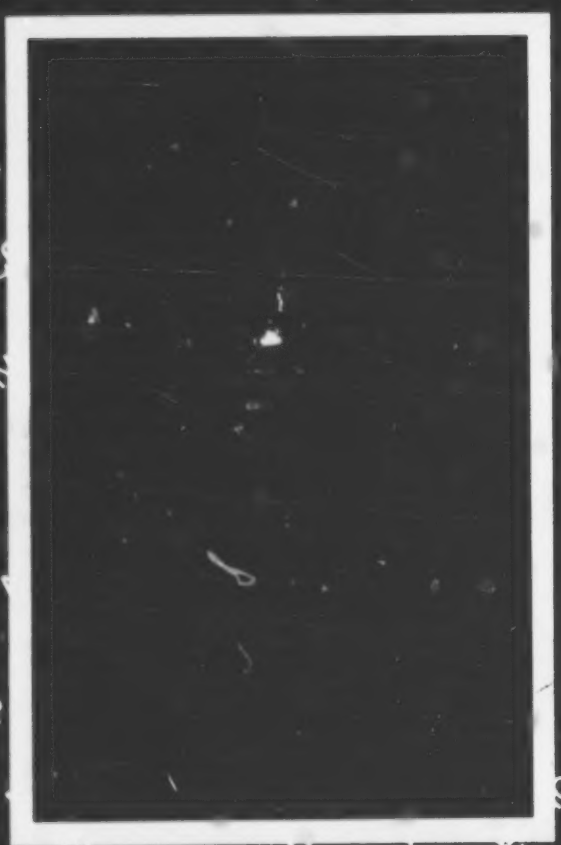
WEST VIRGINIA DEPARTMENT OF EDUCATION

TECHNICAL AND ADULT EDUCATION REVIEW



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A REPORT ON EDUCATION IN WEST VIRGINIA

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Table of Contents

Introduction 1
State Superintendent of Schools 2
Assistant State Superintendent of Schools 3
West Virginia Board of Education Mission and Goals 4
Division of Technical and Adult Education Services Programmatic and Instructional Goals 5
Exemplary Programs Awards 6-14
West Virginia Vocational School of Excellence 15
Vocational-Technical Students in West Virginia Governor's Honors Academy 16

Helping Students Succeed Through
Vocational Education Instructional Programs

- Agricultural Education 17
- Business Education 18
- Consumer and Homemaking/Occupational Home Economics Education 19
- Marketing Education 22
- Diversified Cooperative Training 22
- Technology Education 23
- Health Occupations Education 24
- Industrial and Technical Education 25

Helping Students Succeed Through
Special Programs, Projects and Services

- Public Service Training 26
- Curriculum Development 27
- Community Education 27
- Sex Equity 28
- Single Parents/Homemakers and Single Pregnant Women 28
- Adult Supplemental Education 29
- Adult Preparatory Education 29
- Adult Basic Education 29
- Advisory Committees 30
- Evaluation 30
- Handicapped, Secondary and Adult 31
- Disadvantaged, Secondary and Adult 31
- Job Training Partnership Act/Private Industry Council 32
- Guidance/Counseling/Job Placement 32
- Services for Persons Incarcerated in Correctional Facilities 33
- Basic Skills 34
- Integration of Academic and Vocational Education 34
- Services to Business and Industry 35
- West Virginia Microcomputer Educational Network 36
- Personnel Development 37
- Tech Prep Associate Degree 37

Joint Commission for Vocational-Technical-Occupational Education 39
Vocational Enrollments, by Level 40
Vocational Enrollments, FY '91 by Area 40
Adult Basic Education Enrollments, FY '91 41
Vocational Enrollments, FY '91 41

INTRODUCTION

Each year, the Division of Technical and Adult Education Services conducts a grand synthesis of its programs and plans at the conclusion of the fiscal year. The various legislative mandates, both state and federal, as well as the many division level initiatives, are reviewed in terms of their impact on the local educational agencies' secondary and adult students.

The grand framework under which all vocational and adult education activity is generated is derived from the West Virginia Board of Education Mission and Goals Statements: Helping Students Succeed.

As an integral part of this year's Annual Review, a series of exemplary programs are described. In addition, a wide variety of personnel development activities including teacher preparation and industry-sponsored institutes are detailed. A new element of the Annual Review relates to the selection process and rigorous criteria associated with "schools of excellence." Also, the role of advisory groups, local councils, and the responsibilities of the Joint Commission for Vocational-Technical-Occupational Education are outlined throughout the remainder of this report. Additionally, the nature, function, and purpose of tech prep is highlighted.

The concluding component of the review is an item by item depiction of vocational enrollments and vocational placements.

Vocational, technical and adult education in West Virginia has taken a step into the future. Every youth and adult in the state is invited to become a part of this exciting opportunity to train for tomorrow's high technology, computer-oriented world of work. Here are a few of the facts that you will find in more detail in this publication:

- Vocational education was provided to nearly 109,000 secondary students in 1991.
- Vocational, technical and adult training was provided to 88,000 adults in 1991.
- Over 360 schools in the state offer one or more programs in vocational education.

Training programs are available to all persons without regard to sex, race, color, national origin, age, or handicapping condition.

If you have any questions regarding training opportunities, contact the Divison of Technical and Adult Education Services, West Virginia Department of Education, Building 6, Room B-230, 1900 Kanawha Boulevard, E., Charleston, WV 25305. Telephone (304) 558-2346; FAX 558-0048.

Strong schools are vital to accomplish West Virginia's hopes and dreams, just as a competent work force is critical to West Virginia's economic vitality. By helping schools become strong, we help all students succeed, and their success will move West Virginia forward in its educational and economic goals and objectives.

To strengthen our schools, a multimillion-dollar "computers-in-the-classroom" project was implemented last year. This technological advancement opens a decade of promise for students, parents, teachers, and administrators.

The West Virginia Board of Education is committed to helping our schools produce a competent work force. The board recently adopted a policy that states that all graduates who meet challenging proficiency measures during high school will have a written guarantee of their basic and employability skills. This new warranty program will place a quality stamp of approval on all diplomas certifying that the holders are competent in reading, writing, mathematics, and employability skills. I am pleased to be a part of the energetic efforts of the board, our Governor, and the legislature to create an innovative and technological educational system to help West Virginia students succeed.

This is the time to implement a strong educational plan for the remainder of the 1990s, and vocational-technical education is one of the tools we can use to make our plan a reality.

Sincerely,

Henry R. Marockie
State Superintendent of Schools

ADAM J. SPONAUGLE, *ASSISTANT STATE SUPERINTENDENT*
DIVISION OF TECHNICAL AND ADULT EDUCATION SERVICES

Vocational, technical, and adult education continues to change dramatically because of the dynamics within our social fabric and the forces within our economic system, generally. Witness the new name of the federal legislation. A reauthorized bill for the Carl D. Perkins Act is now the "Carl D. Perkins Vocational and Applied Technology Education Act of 1990." This new act modifies the intent and direction of federal monies. As a consequence, West Virginia's vocational, technical, and adult education facilities will set a new course for the remainder of the 1990s. Helping students to succeed will unfold in a variety of ways because of the initiatives developed by the Division of Technical and Adult Education Services. A few of the promises in store for vocational, technical, and adult education are as follows:

- new linkages among secondary and post-secondary programs
- a stress on program assessment
- a commitment on partnerships
- an integration of academic and vocational-technical education
- a focus on employability skills
- a broad-based approach to basic skills instruc-tion
- a greater emphasis on computer technology
- an increased emphasis on special populations

This report is a brief summary of accomplishments thus far. The text of this report demonstrates a new beginning for the economic lifeblood of West Virginia's young and old. The promise for West Virginia is a greater quality of life because of a new and energized work force. Vocational, technical, and adult education stands at the forefront of West Virginia's blueprint for jobs; and vocational, technical, and adult education is ready and able to deliver the best in technological education and training.

Sincerely,

Adam J. Sponaugle

Adam J. Sponaugle
Assistant State Superintendent
Division of Technical and Adult Education Services

WEST VIRGINIA BOARD OF EDUCATION MISSION AND GOALS

The mission of the West Virginia Board of Education is to establish and maintain a thorough, efficient accountable and dynamic education system.

To achieve its mission, the West Virginia Board of Education has identified the following goals:

1. **OPPORTUNITIES**

   Students will have equal educational opportunities.

2. **ACADEMIC PERFORMANCE**

   Students will graduate with the knowledge and skills needed to succeed in a competitive, changing society.

3. **PERSONNEL, SALARY AND BENEFITS**

   The best personnel will be recruited, retained and provided competitive salaries and benefits.

4. **PROFESSIONAL DEVELOPMENT**

   School personnel will improve their knowledge and skills to help ensure that each student succeeds.

5. **COMMUNITY INVOLVEMENT**

   Schools will become centers of life long learning and community service with partnerships that support teaching and learning.

6. **FACILITIES**

   School facilities will be safe and meet the educational needs of students in an efficient and economical manner.

7. **ECONOMIC DEVELOPMENT**

   Economic development will be facilitated through a well-educated and technically literate work force.

DIVISION OF TECHNICAL AND ADULT EDUCATION SERVICES PROGRAMMATIC AND INSTRUCTIONAL GOALS

Based upon an extensive analysis of the West Virginia Board of Education's seven educational goals described within Helping Students Succeed: Goals of the West Virginia Board of Education, the Division of Technical and Adult Education Services has identified complementary programmatic and instructional goals. These targeted initiatives are to provide a general framework for all vocational, technical and adult programs.

The following represents a synthesis of the goals of the West Virginia Board of Education as they relate to vocational, technical and adult education:

- Basic academic skills of vocational education students will be at a level required for success on the job, continuing education and/or as a productive member of society.

- Employability and lifelong learning skills will be developed through participation in vocational education.

- Occupational/technical content of vocational programs will be reflective of those knowledges and skills essential for success on the job, continuing education and/or as a productive member of society.

- Career exploration and developmental guidance will be provided students in grades 7-9.

- Programmatic articulation will be greatly enhanced through communications and joint curricular efforts with the two-year colleges.

- Vocational education services to business and industry will be expanded and coordinated with other agencies.

- Adult literacy services will be expanded to meet the needs of the state's adult population and the changing demands of the workplace.

- Schools will become centers for lifelong learning and community service with partnerships that support teaching and learning.

In order to promote outstanding programs in vocational and adult education and recognize local educational agencies for their efforts to offer quality programs to all students, the Division of Technical and Adult Education Services encourages innovation and program improvement by judging such offerings as exemplary status programs.

Programs which meet or exceed the criteria for exemplary status must demonstrate that they correlate with "Goals of the West Virginia Board of Education" and the eight initiatives of the division. In addition to these criteria, programs must be evaluated as unique and have demonstrated that they are helping students succeed.

For 1991, twelve such programs were designated as exemplary. They are described below:

HELPING STUDENTS UNDERSTAND THE NEWEST IN TECHNOLOGY

Elk Electronics is the only two-year, full-time adult electronics technology program of its kind in the state. It has been in existence for over twenty years. Elk graduates are employed in biomedical, two-way communications, broadcasting, consumer service, computers, industrial, military, and educational placements.

Elk Electronics is a part of Garnet Career Center in Charleston, in cooperation with Capital High School. The students must have either graduated from high school or earned their General Educational Development Diploma. Some participants are recent high school graduates while others may have been in the work force for several years and are now retraining for new careers.

The primary philosophy of this program is to emphasize the basic principles of electronic technology and to help prepare the students for lifelong learning. Good analytic and troubleshooting skills are founded on a thorough knowledge and understanding of these basic principles.

All instructional phases emphasize hands-on training. The curriculum includes: in-depth academic training in applied mathematics, fundamental communication skills, and reading. Students are taught to construct and analyze circuits, prepare charts and graphs showing the results of their analysis, and prepare detailed laboratory reports. Students are also required to make classroom presentations and demonstrations. The program requires travel to other schools and science fairs in order to make presentations and demonstrations.

The instructors at Elk feel strongly that no education is ever complete and, therefore, they worked out an articulation agreement with the technology department at West Virginia State College over ten years ago. As a result, Elk students received 29 credit hours toward an associate degree in electronics technology. Many graduates have gone on to earn this degree

master's at the College of Graduate Studies. During 1990-91, the instructors have been actively involved with West Virginia State College (WVSC), the West Virginia Joint Commission for Vocational-Technical-Occupational Education, the West Virginia Department of Education, and RESA III to formulate a new articulation agreement with WVSC and several other technical schools which could be a model to be implemented statewide.

MENTORING: HELPING STUDENTS MAKE WISE CAREER CHOICES

Career exploration and development are essential elements within Harrison County schools. Teachers and guidance counselors emphasize comprehensive career planning because of the rural nature of the county and the shift in the region's economy.

The "Mentor Project," centered at Gore Junior High School, is a learning activity designed to complement Choices and Challenges, a career exploration curriculum sponsored by the local Business and Professional Women's Club. For this project, mentors are thought of as role models and career guides. Clarksburg's Business and Professional Women have become the students' personal connection to the community. They are a logical and realistic link between education and employment.

This mentoring approach has resulted in Gore Junior High School students meeting with construction workers, artists, doctors, accountants, carpenters, entertainers, teachers, caterers, athletes, lawyers, musicians, hairdressers, pharmacists, bankers, law enforcement officers, and college professors.

One mentor was so enthusiastic about the project that she started the Harrison County Children's Chorus. Students, kindergarten through 12th grade, many with no musical background, now have a way to express their creative talent. As part of the chorus they learn and perform under professional supervision.

Dr. Judith Stitzel, director of West Virginia University's Center for Women's Studies, guides the project with an expert hand. The National Federation of Business and Professional Women's Clubs, Incorporated, honored the Clarksburg Business and Professional Women's Club with a National Issues Management Award. Because Gore Junior High School's mentoring program helps students succeed, the participants and mentors alike are looking forward to expanding this project in a variety of ways so that all students may benefit in years to come.

HELPING STUDENTS LOOK GOOD AND FEEL BETTER

The fast-paced fashion world of hair care is only one exemplary aspect of vocational-technical education in Wyoming County. The Wyoming County Voca-

tional-Technical Center's cosmetology program offers a unique service designed especially for cancer patients undergoing chemotherapy or radiation treatments. As a consequence of their treatment programs,

these individuals may experience some temporary changes in their appearance, such as hair loss, skin may become dry and pigmented, and nail texture may be affected.

The cosmetology students offer each cancer patient a private consultation concerning nail and skin care needs during therapy. The patients also receive a make over using cosmetics donated by the Cosmetic, Toiletry and Fragrance Association. Orientation materials are supplied by the American Cancer Society including a variety of personal enhancement techniques for a wig.

The local community's special needs have not gone unnoticed by the staff of the cosmetology department. Offering this program provides a vital portion of community service through volunteer efforts, and upon graduation the cosmetology students may incorporate these training skills into their future career.

In addition to the "Look Good...Feel Better" program, the cosmetology department offers other distinctive community services. Among these are: free grooming clinics for headstart and kindergarten groups, foreign exchange students, area civic organizations, and senior citizens. Each year special activities include: sponsoring a bloodmobile, supporting the Special Olympics, and arranging field trips to local schools for disadvantaged and handicapped students.

The basic skills are just one facet of the multi-dimensional cosmetology program. Chemistry, basic sciences and psychology are all integrated into a tightly-fitted practical program of academics to assure the highest competence level of proficiency for each student enrolled in the program.

Through the continuous efforts of the Wyoming County cosmetology department, new and innovative services are constantly being added to the curriculum in order to help students succeed. The cosmetology department strives to encourage each student toward purposeful service to the community, enabling the student to achieve maximum success.

HELPING STUDENTS EXPAND THEIR VISION

Technological changes and advances are mushrooming in the visual communications field. These revolutionary changes provide a major challenge for vocational-technical education to provide current training to secondary and postsecondary students. The Commercial Art/Advertising Design program at Putnam County Technical Center addresses that need by preparing students for employment in the printed or video design industry, using the newest and most innovative hardware, software and techniques available. Potential employers include: advertising agencies, newspapers, printing firms, publishers, in-house advertising/marketing departments, screen printing businesses, photography studios, typesetting firms and TV stations. Broad skill areas addressed during the first quarter of the program include: drawing, shading, perspective, media exploration, color theory, computer-assisted illustration (AutoCAD) and figure drawing within the fine arts segment of the course.

The centerpiece of the program trains students in designing the printed product (graphic design) and readying this product for offset printing. Specific employability skills include: layout, copyfitting, type specification, finished art execution, type generation (either desktop publishing or phototypesetting) and pasteup/mechanical preparation. Additional job-related skills taught include: airbrush techniques, silkscreen process, 35mm photography, and video animation.

The Commercial Art/Advertising Design curriculum is divided into seven certificates. The seventh certificate is oriented toward three areas: Xerox Ventura Desktop Publishing, Autodesk Animator or Varityper 5810 Phototypesetting. These software programs are offered above and beyond state-required learning objectives.

Over the past 14 years, this program has earned innumerable national, state, regional and local awards. At this year's Vocational Industrial Clubs of America (VICA) State Leadership Conference at Cedar Lakes, the instructor was presented an Outstanding Service Award because her students had captured first place awards in all five design contests sponsored by the state VICA organization. The program is the only Approved Training Center for Xerox Ventura Publisher in the State of West Virginia.

The ultimate goal of the Commercial Art/Advertising Design program is to provide high quality, up-to-date training that will lead to gainful employment, and thereby better the economic environment of West Virginia and increase the self-actualization level of all students.

HELPING STUDENTS EXPECT THE BEST

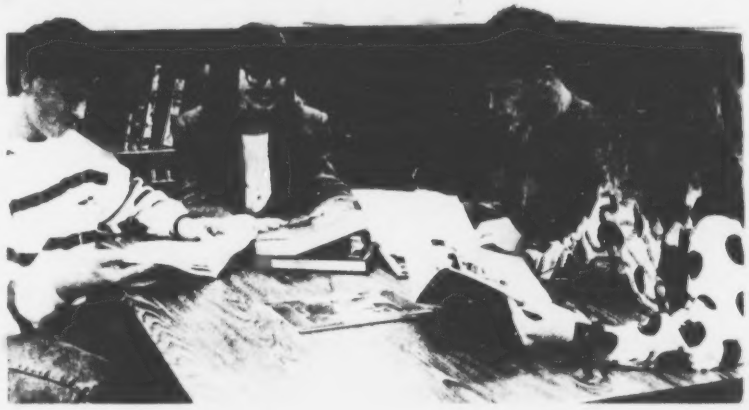
A team approach, coupled with caring and personalized individual attention, are the hallmarks of the Guidance & Placement Department at the Randolph County Technical Center located in Elkins. The success of this program rests upon the "high expectations" the staff has for all students.

A comprehensive team approach encompasses career education, personal counseling, job search and job-holding skills, and placement services. During the past few years, 95 percent of the center's graduates have obtained employment, received additional training in postsecondary schools or have entered into the armed forces.

Chief among the team leaders are former students who regularly assist in the recruitment process at the center while working with the various feeder schools to promote career decision making and wise vocational choices. The Guidance & Placement Department has looked beyond the coming years to the year 2000 and has staked out a visionary program to provide students with work skills and academic competencies required for the upcoming new century.

Employability skills, basic skills and vocational skills are just a few of the integrated curricular elements which comprise the guidance and counseling efforts at the center. All students receive 15 academic hours in Job Employability Skills (JES) to sharpen their competitive vocational and technical skills for today's highly technological careers.

Community support for guidance and counseling is evident by the strong partnership with Monongahela Power Company, whose sponsorship with feeder schools and local private and public postsecondary institutions helps in transitional service from school to school and from school to work.



This exemplary program helps students succeed by providing them with the skills to carefully consider career choices by integrating all of the academic and vocational programs and by working cooperatively with teachers on a continuous and systematic basis.

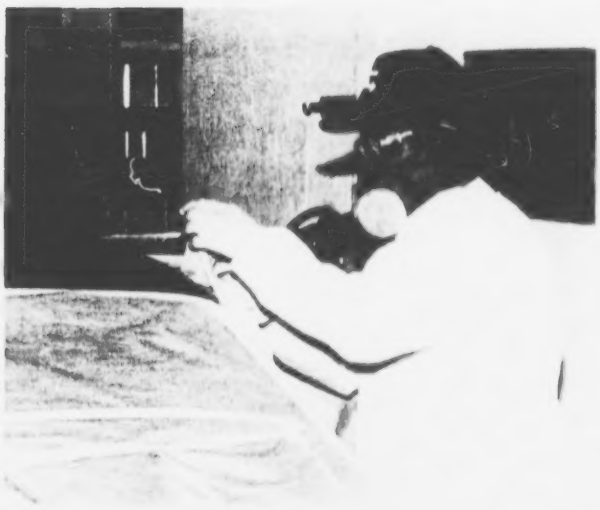
HELPING STUDENTS MEET HIGH STANDARDS

Carver Career Center's auto body repair program is the first Kanawha County offering of this type to have successfully met the standards of the National Automotive Technicians' Education Foundation (NATEF). In fact, they have been the very first in the state to obtain this important certification. For over two years, the instructor of the auto body repair program, Mr. Jerry McIntosh, has worked with Carver's local advisory committee to achieve certification in the following areas:

- Non-Structural Analysis and Damage Repair

- Structural Analysis and Damage Repair
- Plastics and Adhesives
- Painting and Refinishing

Students enrolled in this program study the basic academic subjects of reading, writing and mathematics as they progress in this rigorous vocational-technical occupation.



Along with basic skills, the students engage in five separate seminars per academic year. Representatives of the business-sponsored seminar are:

- Glass Installation/Barracks Automotive
- Three-State Paint Jobs/ NAPA
- High Volume-Low Volume Pressure Paint/ Suchy Auto Service Equipment
- Pinstripping and Painting/Custom Strips

In the preparation for making the transaction from school to job site, students are well grounded in the various value-added skills of teamwork and leadership skills. Through classroom presentations and sophisticated audiovisual programs, students learn the newest techniques required by the fast-paced, technology-driven world of auto body repair.

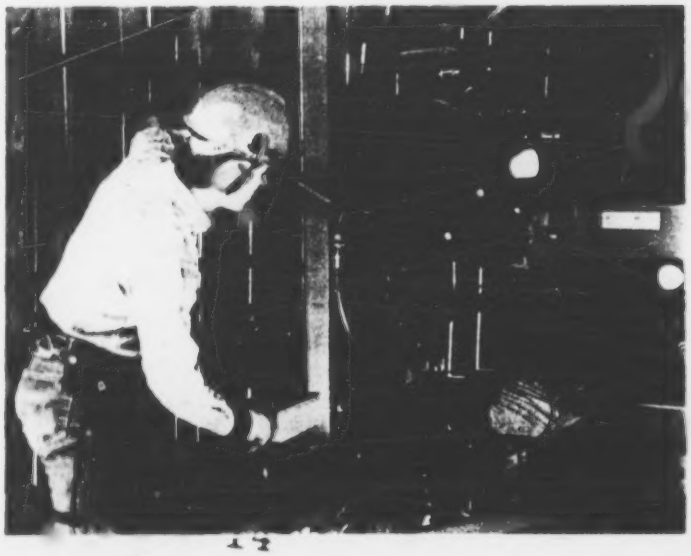
HELPING STUDENTS PREPARE FOR TODAY AND TOMORROW

The forestry industry is growing rapidly, figuratively and literally in West Virginia. Forestry's potential may prove to be one of the largest industries in the state. The forestry program of Pocahontas County High School strives to prepare its students for a place in this industry now and the near technological future. The forestry program was started in the 1974-75 school year with just eight students and has evolved over the years into one of the strongest and most popular vocational offerings at the school, with a present enrollment of over 60 students for 1991.

The program diversity offers several options for students. Such options include:

- An introduction to forestry course which examines the practical techniques and procedures to the principles of applied forestry.
- A first year course which is designed to introduce the students to basic college-level or job-entry skills. Incorporated into this curriculum is the basic knowledge of all forestry subjects.

The students also learn how to correctly harvest, custom saw, scale, and kiln dry lumber using a sawmill, four-wheel drive tractor, and dry kiln which are part of the



forestry classroom at the school.

- A second year course deals with a more detailed application of forestry practices in actual on-the-job situations.

The program's ongoing strength is derived from its partnership with five different professional organizations in the community. For example, Valley Soil Conservation District provides seedling planting and conservation projects. In addition, the United States Forest Service donates firewood for the elderly and a registered firefighting crew to fight forest fires. Another strong partner, Westvaco gives 12,000 trees per year. The Soil Conservation Service offers plant material projects. The Boy Scouts of America assists in timber management of the nearly 2,100-acre Buckskin Scout Reservation. Lastly, the local Board of Education owns 210 acres of land which the Forestry class helps to manage as a registered tree farm under the American Forestry Association.

To provide for continuous educational opportunities, the program has an articulation agreement with Glenville State College whereby students can receive college credits for course work.

HELPING STUDENTS COMPETE IN THE TECHNOLOGICAL WORLD

The Ralph R. Willis Vocational-Technical Center's welding and cutting program exemplifies the school's mission which is to prepare our students with academic skills, technical skills, and social skills so successful employment can be obtained and maintained.

Individual instruction and personal attention is the key to student success in the welding program. Each student is viewed as having a particular set of learning traits that must be capitalized on in order to promote quality learning. The program's goal is to work on an individual basis when necessary to develop those unique learning traits of the individual.

The primary concern of the welding deparment is to develop safe work habits, and also to instill pride in individual workmanship, and to develop leadership skills that lead to a good working climate.

Students are taught how to read blueprints, and then given a blueprint to read, interpret, and construct. Individual attention is given to students who need remedial math skills.

Placement evidence suggests that this program helps students succeed. For example, the welding program shows a 90 percent job placement of its graduates and postsecondary community college enrollment has more than doubled over the past year.

The center and Southern West Virginia Community College have an articulation agreement in the areas of welding, auto mechanics, drafting, and nursing. This articulation allows the vo-tech student, and in this case the welding student, to pursue an associate degree in welding technology.

The center is committed to community involvement. To bolster career exploration opportunities, the Logan County Chamber of Commerce and the Ralph R. Willis Vocational-Technical Center sponsor a Business Symposium yearly. During this symposium, local business/industry leaders come to the center for a full day of talks with the students. Then business leaders and students break into groups and discuss business and employment opportunities in their particular area.

Initiative, goals, and skills, in that order, will help all students develop. Skills without initiative and goals are virtually useless. If teaching/learning is kept on an individual basis, then everybody wins - the school, the teacher, and above all, the "workers of tomorrow."

HELPING STUDENTS IN THE BASIC ACADEMIC SKILLS

Helping students succeed in the basic skills is a comprehensive team effort at the Monongalia County Technical Education Center. Basic Academic Skills for Employment (BASE) is an innovative computerized exploration system integrated with career assessment and basic skills remediation. Designed to supplement basic language and mathematics skill development, BASE allows any student enrolled in grades nine through twelve multiple opportunities to explore basic academic skills needed to perform a job successfully. This program differs from other basic skills programs in that BASE is anchored to job requirements of 12,000 occupations and more than 700 different training programs. The general goal of BASE is to augment the basic skills development of individuals so they may become more competitive in the job market. As a result, students will have the advantage of cultivating specific job skills required by employers.

Over 350 students were enrolled in BASE during 1990. Following careful preassessment of skills and individual counseling, students demonstrated approximately a 75 percent increase in their pre and post tests. In addition to its focused purpose of remediating basic skills, BASE is an aid in reducing the dropout rate, increasing scores on the postsecondary requirements of the SAT and the ACT examinations, and assisting students to prepare for the Comprehensive Test of Basic Skills. An extra bonus for students in BASE is the overall enhancement of computer literacy skills.

The two hundred plus basic skills inherent within the BASE system helps teachers diagnose, prescribe, instruct, manage, and post-diagnose students' basic skills thoroughly in a systematic manner, thus preserving valuable time, energy and resources.

BASE is utilized by:

- Secondary students
- Postsecondary students
- Students already employed
- Students selecting postsecondary programs

HELPING STUDENTS TO BE JOB READY

Lewis County's Job Opportunities and Basic Skills program (JOBS) is designed to help public assistance recipients acquire skills and knowledge in three broad areas:

- Basic Skills (GED preparation)
- Job Readiness Skills
- Life-Coping Skills

Lewis County was one of the original pilot sites for JOBS. Adults in this program attend class five days a week for a total of twenty hours. These adults study literature, writing, math, social studies, and science as they work toward a general equivalency diploma. As a result of personalized attention and guided individualized instruction, all students show improvement in academic skills and many increase skill achievement by as much as four to six grade levels in just a few months. Seventy-seven percent of the adults who participated in the program last year passed all or part of the GED tests. Students also prepare for the world of work, from the initial steps of filling out job applications and conducting interview sessions. To improve skills for on-the-job success, JOBS participants also acquire skills in daily living. These skills include:

- Renting, buying, and maintaining households
- Managing checking and savings accounts
- Becoming more knowledgeable and effective parents
- Increasing knowledge of government and citizenship

Students have put their skills to work. For example, more than 90 percent of the participants have registered to vote and voted for the first time. A greater percentage obtained and continue to use a library card. More than 10 percent of the total participants have gone on to higher level training after passing the General Educational Development Tests, such as nurses' assistant training or area colleges. The positive effects of this program are far-reaching. All students experience a higher level of personal satisfaction and self-confidence. Although the students quite obviously are succeeding in this program, there is also an impact upon the families of those who participate. These adults are not only setting a positive example for their children, but the skills they are gaining lead to improved communication within the family. The positive changes within these families carry over into all facets of the community and local economy. Participants in the JOBS program are working toward a brighter future for themselves and their families. They are also building a brighter tomorrow for the entire community in which they live.

HELPING STUDENTS HELP THEMSELVES

Boone Career Center has a solidly-based business education program for secondary and adult students. Building upon a firm foundation of general office procedures, such as keyboarding, accounting, word processing, secretarial studies and medical office assistance, the center works in conjunction with Southern West Virginia Community College to encourage students to obtain advanced degrees.

This cooperative venture has been operative for some time and is referred to as an "articulation agreement." The courses at the center, having been reviewed and analyzed by Ohio State University and the West Virginia Joint Commission for Vocational-Technical-Occupational Education, allow students who have obtained 12 hours of college credit the opportunity to be admitted to the business education program as a secondary or an adult business education student.

The center's business education program addresses more than just academics of each of its students. Working with adults who have been out of the work force for a number of years requires instructors and counselors to help in the areas of poise, self-

esteem and self-confidence.

Secondary students are often hesitant and unsure on what to base a career choice. The articulation agreement encourages these students to carefully search the various job categories and take advantage of the assessment instruments to evaluate their personal strengths and weaknesses.

Thus, when secondary and adult students are assisted and encouraged to pursue their educational choices beyond high school, they do not lose pace by having to retake similar courses in order to meet arbitrary program requirements for associate degrees. Truly, the articulation agreement serves as an excellent incentive for students to obtain an advanced degree and allows students to get a good start on post-secondary educational opportunities.

Placement is the last solid pillar in the firm foundation of the center's business education program. Upon completing the program standards, students are encouraged to obtain employment in their chosen fields of endeavors.

HELPING STUDENTS OBTAIN APPRENTICESHIP TRAINING

The Cabell County Vocational-Technical Center has implemented a unique apprenticeship training program in the area of child care. The program is a U. S. Department of Labor, Bureau of Apprenticeship and Training, program in Developmental Child Care. The program is co-sponsored by the U.S. Department of Labor, Bureau of Apprenticeship and Training, and the River Valley Child Development Services.

The program consists of 4,000 on-the-job training hours and 300 hours of related classroom instruction. It is open to aides in the county school system and area day care centers. The course is divided into four semesters of instruction over a two-year period. Upon successful completion, the apprentices are elevated to journeymen status and receive nationally-recognized certification from the U. S. Department of Labor, Bureau of Apprenticeship and Training, as Child Care Development Specialist. The program is in its third year and is currently serving over 50 students. The hallmark of its success is the 100 percent placement rate of its graduates.

The philosophy of this program centers on the concept of lifelong learning. The goal is to provide a better trained child care specialist to work in the formative years of the child. In accomplishing this goal, a reduction will occur in the number of at-risk youth and dropouts. The program is providing the various local day care centers and elementary schools with a highly trained work force.

After completing the program and receiving their certification, the students may then apply to Marshall University Community College in the Occupational Technology two-year associate degree program.

WEST VIRGINIA VOCATIONAL SCHOOL OF EXCELLENCE

Kanawha County's Carver Career and Technical Education Center was honored as the first West Virginia Vocational School of Excellence on February 7, 1991. Carver was one of 18 schools in the state recognized as West Virginia Schools of Excellence. The award was based on criteria reviewed by a statewide selection panel. The criteria included:

- student academic and occupational achievement
- dropout rate and service of at-risk students
- implementation of advanced or innovative programs
- parent and community involvement
- student attendance
- reinforcement of basic academic skills
- provision of employability skills
- encouragement of continued education and lifelong learning

Located in the eastern sector of Kanawha County, the Technical Education Center also received a $1,000 award as part of the recognition for its achievement. School records indicated its graduates in the 1988-89 school year achieved a 97.6 percent job placement rate last year. Twenty-five percent of its students posted a perfect attendance rate. The principal of Carver Career and Technical Education Center is Norma Miller, a veteran county educator noted for numerous successful innovative projects in her career.

VOCATIONAL-TECHNICAL STUDENTS IN WEST VIRGINIA GOVERNOR'S HONORS ACADEMY

The West Virginia Governor's Honors Academy is a hallmark of academic excellence for students in the public schools. Of the 165 Honors Academy students selected for participation, 15 were vocational-technical education students. In FY '91, technology courses, such as Technology and Society, Computer Problem Solving, and Microelectronics, were added to the academy. The Honors Academy is one of many ways integrating academic and vocational studies may occur. The vocational-technical students in the FY '91 Honors Academy had exceptional academic ability. The group grade point average for students was 3.67. Seventy-five percent of the students scored 96 or higher (out of a possible 100), on the state Comprehensive Test of Basic Skills.

The Honors Academy students also have high career aspirations. Students plan to pursue occupations, such as computer programmer, aerospace engineering, marine engineering, psychiatrist, nurse, certified public accountant and manage their own business. The West Virginia Governor's Honors Academy represents the best of how vocational and academic education can work together in providing students the opportunities needed to succeed in a competitive and continuously changing society.

HELPING STUDENTS SUCCEED THROUGH VOCATIONAL EDUCATION INSTRUCTIONAL PROGRAMS

AGRICULTURAL EDUCATION

The mission of agricultural education is to provide a total, dynamic educational program. The program served approximately 5,000 secondary students and 1,200 adults in full- and part-time programs throughout the state, focusing on the basic program goals that include:

- To update instruction in agriculture and expand programs about agriculture.
- To amplify and expand the "whole person" concept of education, including leadership, personal and interpersonal skills.
- To develop educational programs that continually and systematically respond to the trends and demands of the marketplace.
- To provide the stimuli that will foster the spirit of free enterprise and develop creative entrepreneurship and innovation.
- To provide leadership and cultivate strong partnerships in the total education system.
- To elevate and extend standards of excellence in classroom and laboratory instruction, supervised experience and Future Farmers of America.

Program diversification and curriculum modification were the major trends as teachers designed strategies to address new technologies in the agricultural industry. Several programs utilized alternative delivery systems, such as the introduction of selected semester courses. For example, small animal care, plant sciences, and wildlife management provided greater accessibility in meeting student needs. Teachers took advantage of inservice activities that focused on aquaculture, forest technology, international agriculture and middle school agriculture.

Ten agriculture teachers and their science counterparts joined forces in a special statewide initiative focusing on the integration and reinforcement of science concepts through the existing agricultural program. The collaborative projects centered on the following:

Experimentation with:

- plant hormones, nutrients, reproduction, and genetics
- zoology and small animal management
- acid rain
- ground water quality
- cantilever beams and electric motors

The Future Farmers of America (FFA) is the organization for students preparing for careers in the agricultural industry and is an integral part of the agricultural education program. FFA activities and award programs complement instruction in agricultural education by giving students practical experiences in the application of agricultural skills and knowledge gained in classes. A major emphasis of the FFA is to prepare young people for leadership roles in their agricultural careers. Students are involved with numerous community service activities that impact on economic development. Major state FFA activities include: FFA convention and leadership conference; state leadership workshops for local officers; motivational visits to local chapters; ham, bacon and egg show; state officers' goodwill tour; and participation in the state fair. Students are also involved in numerous regional and national leadership development activities.

BUSINESS EDUCATION

Business education provides instruction for vocational competence in all facets of the business world. This occupational group is the fastest growing area of employment. It has also become an area which provides an excellent foundation for students pursuing degrees in marketing and business administration. Business education courses enrolled 30,000 secondary, 2,000 adult preparatory, and 2,100 adult supplemental students.

Business education is offered at various educational levels, including junior high school, senior high school, area vocational-technical centers, adult education programs and colleges. Three major curricula are provided in business education: administrative systems, business management and information systems.

Microcomputers are an integral part of business education, and they are utilized in the business curriculum for word processing, data processing, and desktop publishing with emphasis on business applications. Eighty to ninety-five percent of all computer applications are business data. The computer is a tool that is readily used in the home, office and school. The ability to use the keyboard and computer correctly is becoming a basic skill that is necessary. Today's students are using computers in all areas of their studies. Therefore, business education has increased the number of keyboarding (typewriting), computer literacy and application courses to meet today's increasing demands.

In West Virginia, more than 3,500 students enrolled in business programs belong to the 121 Future Business Leaders of America (FBLA) chapters. Four sectional leadership conferences and a state FBLA-PBL Leadership Conference were held involving more than 1,810 students in competitive and leadership events. Approximately 53 members from West Virginia participated in the annual national FBLA-PBL Leadership Conference. Rachel Taylor of Nicholas County High School placed second in Job Description Manual; Christopher Drennen of Nicholas County High School placed third in Mr. Future Business Leader; Barbara Kimble of Jefferson High School placed fifth in Shorthand II; Robert Jones of Parkersburg South High School placed eighth in Business Math; Nicholas County High School placed eighth in Local Annual Business Report; Craig Behr of Wheeling Park High School placed in the top fifteen in Impromptu Speaking; Monica Null of Wirt County High School placed in the top fifteen in Public Speaking; Christopher Drennen of Nicholas County High School was recognized in Who's Who in FBLA; Eileen Shaver from Wirt County High School was recognized as Local Outstanding Adviser and the State Chapter received a Certificate of Merit for State Newsletter prepared by Wahama High School.

The postsecondary students enrolled in Phi Beta Lambda (PBL) are located in vocational centers, community colleges and four-year colleges. There are approximately 324 members and 12 chapters in West Virginia. Students participate in state and national conferences. West Virginia Phi Beta Lambda chapter placed first in the Southern Region State Chapter Membership Increase and first place in the National State Chapter Membership Increase; Peggy Lambert of WV Institute of Technology placed second in Ms. Future Business Teacher; Brenda Shepherd of WV Northern Community College placed fourth in Job Interview; Vicki Bowen of Roane-Jackson Technical Center placed fourth in Administrative Assistant Typist; and Roane-Jackson Technical Center received tenth place for their Community Service Project.

CONSUMER AND HOMEMAKING/OCCUPATIONAL HOME ECONOMICS EDUCATION

A year of exciting new initiatives to help students succeed highlighted vocational home economics program activities in 1990-91. Three counties approved implementation and agreed to pilot Project Taking Charge, a teen pregnancy prevention curriculum for 7th and 8th graders. Nearly 200 home economics teachers attended seven, two-day regional workshops held to assist teachers in the implementation of the new parenting education curriculum. Statewide duplication rights were acquired for 16 parenting-related videos to be used as instructional resources by home economics teachers. Parenting information was also presented to approximately 25 adult educators in a joint venture between the home economics and Adult Basic Education/Job Opportunities and Basic Skills (ABE/JOBS) programs.

Forty-three teachers and content specialists met to develop the format, objectives and content outline for revising Surviving Today's Experiences and Problems Successfully (STEPS), the comprehensive home economics program for 9th and 10th graders. The curriculum revision project was completed through a grant to Marshall University. The practical problem-centered approach was used to update STEPS and incorporates higher order thinking skills as well as reinforces basic skills.

Occupational food service and child-care teachers interacted with industry specialists in two, two-day personnel development workshops. Food service participants discussed and analyzed trends and issues regarding the food service and hospitality industry. The hands-on approach allowed teachers to learn new techniques from practicing professionals. Child care instructors explored day care issues, discussed school-site child care and learned early childhood education teaching techniques.

More than 400 teachers received technical assistance through the activities conducted by the vocational home economics program staff in FY '91.

The West Virginia Association Future Homemakers of America/Home Economics Related Occupations (FHA/HERO) involved over 1,600 members and advisors in three state-sponsored activities. Forty-two members and advisers participated in the national Cluster Meeting in Louisville, Kentucky, while 52 members and advisers attended the National Leadership Meeting in San Antonio, Texas. Seventeen students competed in STAR Events (national competitive events) and earned 8 gold medals, 6 silver medals and 3 bronze medals. Heather Moler of Jefferson County served as national officer from the North Atlantic Region. Julie Pastine of Randolph County received one of two national culinary arts scholarships sponsored by Heinz, Marriott and Johnson & Wales University. Membership for 1990-91 totaled 127 chapters and 2,154 members.

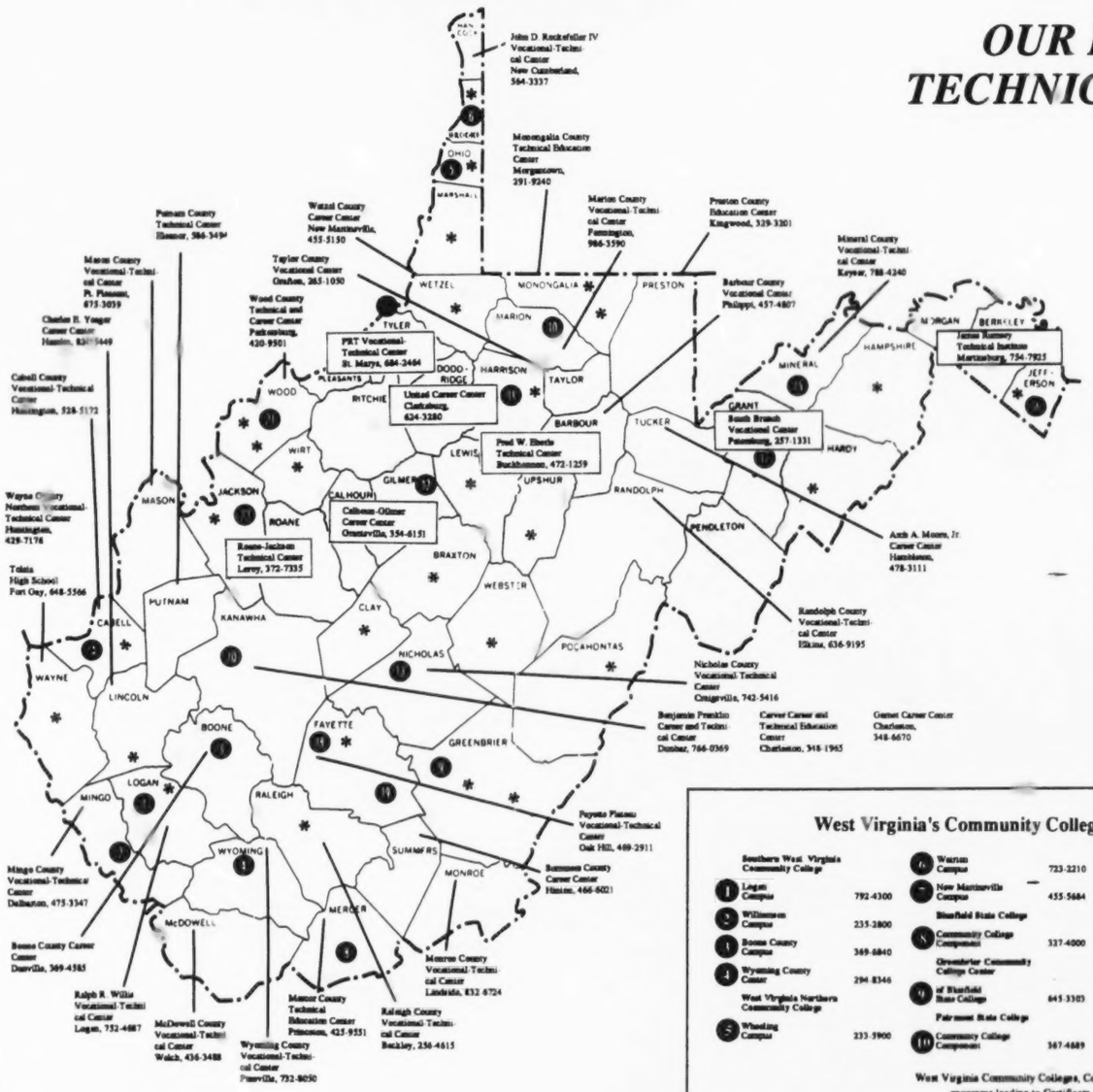
TECHNICAL EDUCATION TOUCHES THE LIVES OF 1 OUT OF 9 WEST VIRGINIANS

OUR FUTURE IS IN TODAY'S TECHNICAL EDUCATION CENTERS

COMPREHENSIVE HIGH SCHOOLS WITH FIVE OR MORE OCCUPATIONAL PROGRAMS

- **Braxton County High School** Sutton, 765-7331
- **Brooke High School** Wellsburg, 527-1410
- **Milton High School** Milton, 743-7308
- **Clay County High School** Clay, 587-4226
- **Valley High School** Smithers, 442-8284
- **Greenbrier East High School** Lewisburg, 647-6464
- **Greenbrier West High School** Charmco, 438-6191
- **Hampshire High School** Romney, 822-5016
- **East Hardy High School** Baker, 897-5948
- **Liberty High School** Clarksburg, 624-3264
- **Ripley High School** Ripley, 372-7355
- **Lewis County High School** Weston, 269-8315
- **Harts High School** Harts, 855-4881
- **Chapmanville High School** Chapmanville, 855-4522
- **John Marshall High School** Glen Dale, 843-4444
- **University High School** Morgantown, 291-9270 292-8469
- **Morgantown High School** Morgantown, 291-9260
- **Wheeling Park High School** Wheeling, 243-0400
- **Pocahontas County High School** Dunmore, 799-6565
- **Shady Spring High School** Shady Spring, 256-4647 763-2303
- **Buckhannon-Upshur High School** Buckhannon, 472-3720
- **Webster County High School** Upper Glade, 226-5772
- **Wirt County High School** Elizabeth, 275-4241
- **Parkersburg High School** Parkersburg, 485-7941
- **Parkersburg South High School** Parkersburg, 420-9610
- **Tolsia High School** Fort Gay, 648-5566
- **Jefferson High School** Shenandoah Jct., 725-8491

Total comprehensive High Schools with Five or More Occupational Programs-27


John D. Rockefeller IV Vocational-Technical Center New Cumberland, 564-3337
Monongalia County Technical Education Center Morgantown, 291-9240
Marion County Vocational-Technical Center Fairmont, 363-3100
Preston County Education Center Kingwood, 329-3301
Mineral County Vocational-Technical Center Keyser, 788-4240
Putnam County Technical Center Hurricane, 586-3494
Mason County Vocational-Technical Center Pt. Pleasant, 675-3059
Wetzel County Career Center New Martinsville, 455-5150
Taylor County Vocational Center Grafton, 265-1050
Wood County Technical and Career Center Parkersburg, 420-9501
Barbour County Vocational Center Philippi, 457-4807
PRT Vocational-Technical Center St. Marys, 684-3464
United Career Center Clarksburg, 624-3280
Fred W. Eberle Technical Center Buckhannon, 472-1259
South Branch Vocational Center Petersburg, 257-1331
James Rumsey Technical Institute Martinsburg, 754-7925
Jefferson
Cabell County Vocational-Technical Center Huntington, 528-5172
Wayne County Northern Vocational-Technical Center Huntington, 429-7176
Calhoun-Gilmer Career Center Grantsville, 354-6151
Roane-Jackson Technical Center Leroy, 372-7335
Arch A. Moore, Jr. Career Center Hamlin, 824-3111
Tolsia High School Fort Gay, 648-5566
Randolph County Vocational-Technical Center Elkins, 636-9195
Nicholas County Vocational-Technical Center Craigsville, 742-5416
Benjamin Franklin Career and Technical Center Dunbar, 766-0769
Carver Career and Technical Education Center Charleston, 348-1965
Garnet Career Center Charleston, 348-6670
Logan County Vocational-Technical Center Logan, 752-4687
McDowell County Vocational-Technical Center Welch, 436-3488
Mercer County Technical Education Center Princeton, 425-9551
Wyoming County Vocational-Technical Center Pineville, 732-8050
Raleigh County Vocational-Technical Center Beckley, 256-4615
Fayette Plateau Vocational-Technical Center Oak Hill, 469-2911
Summers County Career Center Hinton, 466-5021
Monroe County Vocational-Technical Center Lindside, 832-6724
Boone County Career Center Danville, 369-4583
Mingo County Vocational-Technical Center Delbarton, 475-3347

27 High Schools—Five or more occupational areas.

30 County Vocational Centers with five or more occupational areas.

7 Multi County Centers.

12 Colleges—Universities offering vocational education.

14 Specialized Facilities offering vocational education.

Vocational education programs, utilizing over 300 schools, are available to students in every county in the state. Students at secondary, post-secondary and adult levels are within easy accessibility of vocational training with minimum of inconvenience.

VOCATIONAL ENROLLMENT FY 1991

Secondary	105,101
Adult Preparatory	3,405
Community Colleges	16,543
Part-time Adult	43,748
Adult Basic Education	23,077
JTPA (Adult and Youth Programs)	5,103
TOTAL	196,977

West Virginia's Community Colleges & Components . . . Taking Today's Education A Step Further

1	Southern West. Virginia Community College: Logan Campus	792-4300	6	Warren Campus	723-2210	11	Clarksburg Center of Fairmont State College	623-5721	15	Potomac State College of West Virginia University	788-3011	19	Oak Hill Center of West Virginia Institute of Technology	465-0346
2	Williamson Campus	235-2800	7	New Martinsville Campus	455-5684	12	Glenville State College Community College Component	462-7361	16	Shepherd College Community College Component	876-2511	20	West Virginia State College Community College Component	766-3000
3	Boone County Campus	369-6840	8	Bluefield State College Community College Component	327-4000	13	Nicholas County Center of Glenville State College	872-1256	17	South Branch Valley Center of Shepherd College	257-4434	21	West Virginia University at Parkersburg	424-8000
4	Wyoming County Center	294-8346	9	Greenbrier Community College Center of Bluefield State College	645-3303	14	Marshall University Community College Component	696-3170	18	West Virginia Institute of Technology Community College Component	442-3071	22	Jackson County Center of WVU at Parkersburg	372-6992
5	West Virginia Northern Community College: Wheeling Campus	233-5900	10	Fairmont State College Community College Component	367-4689									

West Virginia Community Colleges, Community College Components and branch campuses offer a wide variety of career-technical programs leading to Certificate of Applied Science, Associate of Applied Science and Associate of Science degrees.

OVER 200 DEGREE PROGRAMS AVAILABE

Bus. & Secretary	Veterinary Tech	Computer Aided Design	Automotive Tech
Engineering Tech	Banking	Electronics	Air Cond. and
Nursing	Criminal Justice	Communication	Refrig. Tech
Medial Labor Tech	Data Processing	Dental Hygiene	Computer Science
Nuclear Med	Food Service Management	Printing Technology	Welding

MARKETING EDUCATION DECA

The purpose of marketing education is to provide training to those students in marketing, merchandising, management and entrepreneurship careers. Students can receive classroom and on-the-job training in many related occupations, such as advertising services, apparel and accessories, finance and credit, food marketing, hospitality and tourism, restaurant management, and entrepreneurship. Marketing education students are preparing for advanced positions that exist in West Virginia in the growing service and retail industries.

Marketing education students are given the opportunity for in-class instruction as well as supervised, on-the-job training. The classroom instruction is individualized to meet student needs and includes guest speakers from business and field trips to local businesses. Many programs have school stores that act as retail training labs to help students learn more about business operation. The on-the-job training has been a long established school-business partnership. It is a cooperative effort between the school and local businesses to give students a realistic training experience under the supervision of both the training sponsor and the teacher-coordinator. School credit is awarded for the classroom portion of the program and for the related work site activities.

Marketing education enrollment has been relatively stable over the past five years. It is currently offered in 40 facilities in 21 counties. The program at Capital High School in Kanawha County was named one of 13 exemplary vocational programs in West Virginia because of its innovative curricular offerings and unique school store. The two marketing education teachers at Capital High are state leaders in their field.

DECA is the student organization for marketing education students and has 1,800 members in West Virginia. The activities of this association include leadership training, community projects, state, regional and national conferences, and competitions related to student occupational goals. In 1990-91, approximately 850 West Virginia DECA members attended one of the four major conferences sponsored by West Virginia and national DECA. At the national DECA Career Development Conference in Denver, a team from Jefferson County High School captured the third place award in the Creative Marketing Research event for their survey of shopper perceptions of the downtown Charles Town shopping area. A legally blind student from Morgantown placed in the Hospitality and Tourism Event. Melody Gibson, an ex-West Virginia DECA state officer and current collegiate DECA member from Marshall University, was elected to the collegiate division National Officer Team.

DIVERSIFIED COOPERATIVE TRAINING (DCT)

Diversified Cooperative Training (DCT) programs train students for a wide range of jobs. These can include such areas as business and office, marketing trade and industrial (carpentry, electrical, masonry, auto mechanics, auto body, etc.), health occupations, and agriculture. The training for jobs in these vocational areas is completed through a DCT program if separate programs in each area are not available in the school system. Presently, there are 45 DCT programs operating in high schools and vocational-technical schools in West Virginia

Diversified cooperative training programs provide alternative learning options for students who do not have vocational training programs available to them in their area of interest. The teacher/coordinator individualizes the instruction to each student's course interest. The program includes training in local businesses. This on-the-job training is supervised by the teacher/coordinator, and the job tasks are identified to allow for maximum training to reach the student's career goal.

Students are urged to join the vocational student organization that best addresses the student's occupational interest. While most join DECA, many belong to VICA or FBLA.

TECHNOLOGY EDUCATION

Each year more counties are actively changing their industrial arts curriculum to technology education programs. Over eight counties are renovating or building facilities which include laboratories for technology education and many other counties are refocusing curriculum in existing facilities.

The technology education curriculum is a comprehensive hands-on program concerned with how humans use communication, construction, manufacturing and transportation systems to adapt to their environment. Students use a variety of tools, materials and processes to apply abstract theories to concrete experiences. These programs involved over 18,000 students in over 240 schools throughout West Virginia in the 1990-91 school year.

Two major grants were received to develop curriculum materials for technology education. The first was a grant from Monongahela Power Company to Fairmont State College's Technology Department for the development of activities dealing with Electric Transportation. Five complete activity packages were developed, as well as working models which will be used to demonstrate the concepts in the field. One of the more intricate models is an electric vehicle, which was donated by the Navy and renovated by the students.

In the fall of 1991, California University of Pennsylvania, Fairmont State College, Salem-Teikyo University and West Virginia University officially established the Appalachian Technology Education Consortium (ATEC). The primary goal of ATEC is to contribute to the preparation of technologically literate youth in the Appalachian Region, and was funded by a two-year $277,950 grant from the United States Department of Education.

ATEC has established a demonstration project in secondary schools which will serve to integrate the teaching of technology education with mathematics and science. The project consists of seven demonstration schools and 35 observer schools. All participating technology, mathematics and science teachers and administrators in these schools will take part in a two-phase orientation consisting of a satellite transmitted overview and more detailed onsite presentations. The approximately 2,080 students participating in the project will have the opportunity to learn and apply activities related to technological concepts and related mathematical and science concepts as they apply to problems in communication, construction, manufacturing and transportation.

The Technology Student Association (TSA) is in its thirteenth year, serving more than 20 chapters and 560 members. Four new chapters were started this year, representing four new counties across the state. Ninety-two students and advisors attended the national conference in Tulsa, Oklahoma, returning with 11 trophies and 46 finalists. West Virginia hosted the third National TSA Leadership Conference for 74 states' officers nationwide.

HEALTH OCCUPATIONS EDUCATION

Health Occupations Education (HOE) helps prepare individuals for health care practice at levels requiring less than a baccalaureate degree. It is estimated that 80 percent of the individuals now employed in the health care system are prepared at this level. Traditional programs include practical nursing, dental assisting, nurse assisting and medical assisting.

Medical technology continues to create specialized job opportunities particularly at the paraprofessional level. This past year several new programs were initiated to address this need. In Kanawha County, programs were implemented in two employment categories: certified respiratory therapy technician (CRTT) and certified hospital pharmacy technician (CHPT). In Beckley, Charleston and Morgantown, programs were piloted in the educational preparation of paraprofessionals to work in community settings with clients having developmental disabilities. Many groups were represented in the initial planning process and continue to be actively involved in the instructional effort. These include health care professionals, the Department of Health and Human Resources, and institutions of higher education. In addition to meeting the needs of the local community and health care industry, these new programs are enrolling many underemployed adults providing advancement in employment and career opportunities.

The Omnibus Budget Reconciliation Act (OBRA) mandates, and West Virginia Division of Health Criteria emanating from OBRA legislation called for, modifications in processes and procedures for approval of all nurse assistant programs. Programs were approved by the Office of Health Facilities Licensure and Certification (OHFLAC) in order for student/completers to be eligible for the certification now required for employment.

A newer curriculum for the educational preparation of long-term care nursing assistants was also developed with the input of teachers and advisory committee members. This curriculum was approved by OHFLAC and had been used by counties to prepare adults in short term for immediate employment and certification as nursing assistants.

Cooperative efforts between business education and health occupations education resulted in development of a state curriculum for medical transcription. Programs have been implemented in Princeton and Charleston.

Health occupations students participate in Vocational Industrial Clubs of America (VICA), the student organization serving health occupations as well as trade, industrial and technical education. Club activities have included participation in community health fairs, senior citizens' gatherings, bloodmobiles and blood pressure screening clinics. State VICA Skill Olympics are held yearly. Winners from state competition have gone on to win at the national level every year. At the national VICA Skill Olympics, 17 of West Virginia's health occupations students were awarded medals for placing in the top three categories of leadership and skills competitive events.

INDUSTRIAL AND TECHNICAL EDUCATION

Industrial and technical education prepares individuals for success in the industrial and service sectors of the economy. Industrial and technical education serves in-school and out-of-school youth and adults who need, want and may profit by instruction that prepares them to enter, advance or retrain for employment consistent with manpower and labor market needs. Industrial and technical occupations are classified on multiple levels of employment ranging from operators to semiskilled and skilled craftspersons and technicians. Data shows that students with vocational training have a good chance of finding employment, and the unemployment rate of this group is less than the national average.

Industrial and technical education includes training for apprenticeable trades, technical occupations and other industrial and service occupations. These involve, but are not limited to: layout, designing, producing, processing, assembling, testing, maintaining, servicing or repairing of products. Programs are constantly being revised to keep up with technological changes and requirements of today's business and industrial community, for example, the integration of computers into drafting, machining and welding processes to create a computer-controlled manufacturing system; desk top publishing systems in graphic communications and commercial art programs; a robot welding arm in a welding program; and updating to the latest national codes in electrical occupations and the welding field. Teachers are provided the opportunity to attend industry-sponsored workshops to keep up with modern industrial practices.

The student organization serving industrial and technical education students is the Vocational Industrial Clubs of America (VICA).

In West Virginia, membership for 1991 was approximately 4,900 students, secondary and postsecondary. VICA members participate in many leadership and skill-building activities at the local, state and national levels. Having direct contact with business and industry, VICA students get involved early in their potential careers and are able to provide community service as a part of their program of work. With business and industry representatives serving as judges, these students compete in 42 different contests, with awards given for both secondary and postsecondary levels. Many of the state and national winners are offered scholarships and employment opportunities along with their trophies and medallions. At this year's national contest, 28 West Virginia students received medals by ranking within the top three places for their leadership or skill event.

PUBLIC SERVICE TRAINING

FY '91 was again a successful year for public service training in West Virginia. Enrollments reached an unprecedented high with over 22,000 students being served. As a result, continued emphasis was placed on assisting instructors and developing materials to improve instruction.

This is an increase of over 800 students compared to FY '90 figures.

Hazardous Materials Training

Fifty-eight classes were held with a total enrollment of 1,233. Classes were held in the following areas: HazMat First Responder, HazMat Incident Response, HazMat recognizing and Identifying and HazMat Incident Command.

Pro-Board Examinations

Public Service Training continues to be actively involved in the State of West Virginia's testing and accreditation for firefighters with the National Fire Prevention, Professional Qualification Board (Pro-Board). To date, over 200 firefighters from all parts of the state have been certified through the test. FY '91 was the largest Pro-Board test to date with 65 firefighters being tested.

This program is the only site in the United States where applicants and the examination are rated for three levels of accreditation at one time: Firefighter Level 1, Firefighter Level 2, and Firefighter Level 3.

This test has had a very positive impact on the Fire Service in West Virginia and exemplifies a cooperative effort between Vocational Education, West Virginia University's Fire Service Extension and the State Fire Commission.

Law Enforcement Training

Major changes have been made in law enforcement training over the last several years. With new laws and requirements, public service training has moved totally away from basic training, which is now done at the State Police Academy, to meeting the statewide demand for inservice and supervisory training. Some of the classes held this year include: Law Enforcement Inservice, Law Enforcement Officer/Supervisor Training, and Specialized Law Enforcement Training.

Environmental Training

Through the West Virginia Environmental Training Center several new activities have been initiated in addition to continuing past programs. Enrollment totaled 633 students in a range of courses including Lab Procedures, Collection Systems Maintenance, Safety, Hazardous Materials, Financial Management, Process Control and others. Seven new courses were offered for the first time; 36 programs were presented.

Additional program highlights include:

- Development of Lab Technician Certification program in cooperation with the Department of Natural Resources.
- Technology updates: computer upgrades have improved record keeping and desk top publishing capabilities.
- The Environmental Training Center will now be providing layout for EPA's national training newsletter "Onsite/Oversite."
- Six editions of the "ETC Newsline" were prepared and mailed statewide to 525 operators, managers and others.
- Many lab and training items were donated by individuals and companies for use at the center.

- Development of computer interactive math lessons continued with four new lessons completed.

- Technical assistance and lab analyses were performed for the Cedar Lakes sewage plant.

- The Operations Excellence Awards program for West Virginia was sponsored by the Department in cooperation with the federal EPA.

- The 104 Onsite Technical Assistance programs provided site specific operator training at approximately 15 wastewater plants.

CURRICULUM DEVELOPMENT

Development of Instructional Materials:

New or revised competency-based vocational education curriculum materials were developed for the following areas of study:

- Teaching Thinking Skills in Vocational Education
- Middle School Technology Education
- Parenting Education
- Biotechnology in Agriculture
- Business Education Program of Studies

A scope and sequence document, outlining the recommended "mix" of academic and technical course work required for each vocational area of study, was developed and distributed statewide for use in developing the four-year education plan for all 9th grade students.

Criterion-referenced test item banks were developed in 15 areas of study and distributed statewide for use by teachers via the statewide purchase of item banking test generation software.

Industrial video equipment remained a high priority, with 23 businesses directly served. Also departmental video assistance needs were served through technical assistance in approximately 29 areas. Additional county school systems initiated a curriculum restructuring effort to make the vocational program more accessible. The traditional three-hour block was modified to encompass one- to two-hour courses based on an 18-week course format.

Operation of Vocational Curriculum Laboratory:

The Vocational Curriculum Laboratory merged in March 1990 with the legislatively mandated Curriculum Technology Resource Center (CTRC). The vocational component of the CTRC is operated by the Division of Technical and Adult Education Services and serves as the state curriculum resource center for vocational education and the master video bank of general education materials. The vocational lab component offers:

- Over 17,000 cataloged instructional materials available for 30-day loan
- Over 3,500 audiovisuals available for 14-day loan
- Production of West Virginia-developed, competency-based curriculum
- Inservices and seminars
- Regional and national searches for curriculum materials
- State-developed test item banks
- Access to the National Network for Curriculum Coordination

In addition to hard-copy catalogs, access to the lab card catalog is electronic via a library management program which is networked for ease of use by staff and patrons.

COMMUNITY EDUCATION

Community Education in West Virginia is coordinated in local communities by the county boards of education. They are guided by a Five-Year State Plan which is developed by the state Association of Community Education (ACE).

Community Education consists of activities of public interest and enrichment sponsored by the community for the community. Examples of Community Education programs are intergenerational activities, non-credit courses and pre-diagnostic clinics. These activities are in addition to occupational, business/industry or adult basic education classes.

Local citizens, community schools, agencies and institutions become active partners in addressing education and

community concerns. Approximately 200,000 people were served during FY '91 through Community Education programs throughout West Virginia.

Initiatives and monitoring of Community Education programs are solely a local community option because no federal or state money is available to support personnel in the West Virginia Department of Education's Division of Technical and Adult Education Services to assist local communities with Community Education responsibilities.

There has been some federal assistance available through the West Virginia Department of Human Services as seed money to start "Extended Day Programs." These programs provided either before or after school activities for school-age children who were without supervision during that time. Typical activities included tutorial, personal safety, personal development and recreation between the hours of 7:00 to 8:00 a.m. and 2:30 to 6:00 p.m. on each school day. Additional federal monies were distributed for Community-Based Organizations in the area of adult literacy, dropout prevention, career testing and teaching living skills to the mentally retarded.

SEX EQUITY

One full-time staff person coordinates activities relating to the elimination of sex bias, sex discrimination, and sex stereotyping in vocational education programs in the state. Under the jurisdiction of the State Board of Education, the sex equity coordinator administered 74 grant programs for sex equity, single parents, displaced homemakers, and single pregnant women. Onsite, technical assistance was provided to one-half of the state's local education agencies. The staff person also worked with community-based organizations, other governmental agencies, colleges, and universities.

The state sex equity coordinator reviewed proposed actions and programs to ensure that the needs of women and nontraditional students were addressed. Data related to the effectiveness of vocational programming and status of male and female students were analyzed and disseminated. Recommendations and priorities were developed for outreach programs and information to women.

SINGLE PARENTS/HOMEMAKERS AND SINGLE PREGNANT WOMEN

During FY '91, monies were awarded to 31 local education agencies conducting single parent, displaced homemaker, and single pregnant women programs serving 178 males and 1,434 females. Special vocational programming, assistance, and support services were available for eligible participants. Funded programs served 1,612 participants, 337 of whom were displaced homemakers and 1,275 of whom were single parents. Approximately one-third of the participants were enrolled in full-time occupational programs, and two-thirds received adult basic education, which provided opportunities for further training and employment.

The majority of the programs included these components: outreach, assessment, basic skill training, nontraditional occupational training, pre-employment training, pre-vocational exploration, transitional services from homemaking to wage earning, personal development skills, GED preparation, placement services, and technological updates.

A variety of support services for single parents, displaced homemakers and single pregnant women was provided. Five hundred thirty-six participants received child care assistance. In a rural state, such as West Virginia, the lack of transportation is a significant barrier for many potential students. Transportation assistance was provided to 289 single parents, displaced homemakers, and single pregnant women this year. Additionally, other support services provided tuition and fee-waivers to 314, instructional supplies and materials to 614, job placement services to 313, and support services for 1,560 from other agencies. Various techniques and strategies designed to actively recruit single parents, displaced homemakers, and single pregnant women were utilized by local education agencies. In addition to those served in funded projects, 1,976 adult students were identified as single parents, displaced homemakers, or single pregnant women. Efforts were made to provide comprehensive programs to meet the special needs of these groups. As a direct result of this program, single parents, displaced homemakers, and single pregnant women have gained personal and marketable skills which will

enable them to support themselves and their families.

ADULT SUPPLEMENTAL EDUCATION

Part-time vocational classes generally range from 6 weeks to 26 weeks. They were held at the local vocational-technical centers, high schools or businesses or industries. Their purpose was to allow adults to upgrade their job skills or learn emerging skills related to their employment. Classes were conveniently offered evenings and weekends to be beneficial to employers and employees.

In 1991, over 650 classes were offered in over 60 different occupational areas.

These classes were supported through state and local monies as well as tuition.

ADULT PREPARATORY EDUCATION

A wide variety of adult preparatory programs was available at county vocational-technical centers and high schools. Anyone who had graduated from high school, or was at least 16 years old and dropped out of high school, could apply for these programs. Typically, programs were offered in office occupations, marketing education, health occupations, technical, industrial and emerging occupations. The type and number of programs varied from county to county based on facilities available, company support and need for the training.

These programs were generally one to two years in length allowing adults to prepare themselves for full-time employment in a new or different job. Occasionally, students enrolled in portions of these programs to upgrade their skills or to keep up with technological advances.

Financial aid was often available through Pell Grants, Veterans Administration, Job Training Partnership Act, Government Student Loans or local scholarships.

The programs were supported by federal, state and local funds.

ADULT BASIC EDUCATION

Adult Basic Education (ABE) experienced a year of growth and increased public awareness during FY '91 as a result of a variety of state and national initiatives. The need for a more literate West Virginia prompted Governor Gaston Caperton and the West Virginia Legislature to adopt Goal VI: "All working age adults will be functionally literate by the year 2000." Additionally, Governor Caperton appointed a nine-member Literacy Council to assess the status of literacy efforts in the state and make recommendations for future action.

First Lady Rachael Worby assisted in increasing the public's awareness of the illiteracy problem in West Virginia through her grassroots fund-raising drive, "Thanks a Million." ABE staff across the state joined with Ms. Worby in promoting the campaign to raise $1 million for literacy programs.

The Job Opportunities and Basic Skills (JOBS) program, a joint effort between the West Virginia Department of Education and the Department of Health and Human Resources, improved the basic academic skills, life-coping skills, and pre-employment skills of 884 individuals receiving public assistance. During FY '91, 39 JOBS sites were established in 31 West Virginia counties. Plans call for further expansion during FY '92 to meet the needs of the participants in this federally-mandated program.

The joint literacy office, which houses the state staff of Literacy Volunteers of West Virginia, West Virginia Laubach Literacy, the West Virginia Adult Literacy Coalition, and Televised Adult Basic Education, continued to build a close linkage system for literacy efforts statewide. Through the toll-free adult education hotline, the literacy office responded to 2,971 calls requesting general information. In order to further increase communication and collaboration among literacy providers, a new statewide adult education/literacy newsletter, NET-WORKS, was published and distributed to over 4,000 readers bimonthly.

The West Virginia Adult Literacy Education Program (tax checkoff) funded 11 projects involved in assisting low-level adult learners. Further support for volunteer literacy programs was provided by Adult Basic Education through funding for tutor training materials and $200 grants to 43 local programs. Family literacy, state

coordination, and staff development were the focal points of the eight 353 special demonstration projects funded this year. An implementation manual, Visions in Action, was published to disseminate the findings of these projects.

During FY '91, the "GED ON TV" program incorporated a beginning reading series entitled "Learn TO READ" into its regular broadcast schedule. Now, because the former "GED ON TV" covers all academic aspects of ABE, it has evolved into the "Televised Adult Basic Education Program." An awareness campaign was launched in January, kicking off with a two-hour, live telethon produced by WPBY-TV in Huntington. A mixture of entertainment and informative interviews, "You Can G.E.D. It!" showcased the at-home-study programs available on public broadcasting stations to students who are unable to attend traditional ABE classes. As a result of the telethon, 1,108 new students were reached, making a total enrollment of 1,620 for FY '91.

During FY '91, 23,077 adults were enrolled in the ABE program, with 574 foreign-speaking adults in English as a Second Language class, 375 institutionalized adults, 1,542 adults in correctional facilities, and 37 in the External Diploma Program. During FY 91, 3,659 adults passed the GED test to earn their high school equivalency diploma.

The cost effectiveness of Adult Basic Education can be seen in terms of state and federal investment by the following figures: 114 students were removed from public assistance; 1,251 students obtained a job or a better job, and 2,139 entered another educational or training program as a direct result of their enrollment in ABE. Although the literacy goal is a lofty one to accomplish by the year 2000, strides were certainly taken toward achieving it during FY '91. New state initiatives and recently passed federal legislation, known as the National Literacy Act, should assist in this effort for the future.

ADVISORY COMMITTEES

Each local education agency has a general advisory committee as well as an occupational advisory committee for each vocational program. Advisory committee members are representatives from business, labor and industry and reflect the racial, ethnic, and gender makeup of the locale. These committees provide valuable assistance and advice to administrators of vocational programs and help instructors keep abreast of technical advances in their fields.

EVALUATION

The vocational evaluation system requires that all Local Education Agency (LEA) vocational personnel complete a self-assessment instrument for their program or activity every three years if they receive vocational funds from the Division of Technical and Adult Education Services. These include vocational programs at all levels and vocational administration, guidance, placement and support services. The standards used are based on state and federal regulations and policies established by the Division of Technical and Adult Education Services.

An evaluation team made up of state staff members and vocational educators from LEAs, review the self-assessment instruments and then visit the programs and activities to verify that the standards are being met. Where standards are not met, the team makes recommendations to the LEA to correct any problems so standards can be met. This year 19 counties and 4 multi-county vocational centers were evaluated. Over 90 percent of the programs were visited and approximately 70 percent were thoroughly evaluated.

A detailed report on each vocational program and activity evaluation was provided to the LEAs within 30 instructional days. The LEAs were instructed to provide to the Division of Technical and Adult Education Services improvement plans to correct any problems or to make significant improvements prior to the next scheduled evaluation. To date, 11 LEAs have developed improvement plans with the balance due November 15, 1991. The state staff provides technical assistance to the LEAs in developing and implementing their improvement plans.

The following changes were made in the 1990-91 vocational evaluation system to

improve its accuracy and make it easier to use:

- A three-year evaluation cycle was implemented so a larger percentage of programs could be thoroughly evaluated.
- The format of the evaluation instruments was changed to make them easier to use by LEA personnel and onsite evaluation team members. There were only very minor changes in the standards themselves.

HANDICAPPED, SECONDARY AND ADULT

Local education agencies in West Virginia used funds appropriated under the Carl D. Perkins Vocational and Applied Technology Education Act to increase and improve vocational opportunities for identified handicapped students in special programs and mainstreamed programs. Supplemental service received by each identified student included the following:

- Assessment of interest, abilities, and special needs.
- Special services, modified curriculum, instruction, and equipment.
- Guidance, counseling, and career development activities conducted by professionally-trained counselors.
- Transitional plan.
- Awareness of parents and students of vocational education opportunities.

Mainstream enrollments of handicapped students totaled 5,678 while 36 were served in special programs.

Among the most outstanding achievements in 1991, these are the most typical:

- Four of the handicapped support service and prevocational programs have been presented at regional and national conferences.
- Each local education agency has a signed interagency agreement, and implementation plans are being initiated.
- Supportive employment as another vocational alternative is being used by several local education agencies.

DISADVANTAGED, SECONDARY AND ADULT

Local education agencies in West Virginia used funds appropriated under the Carl D. Perkins Vocational and Applied Technology Education Act giving students identified as disadvantaged the opportunity to succeed in vocational courses, both in the mainstream and special classes. To increase and improve vocational opportunities for 29,042 disadvantaged students enrolled in vocational programs, supplemental services were provided for each identified student as follows:

- Assessment of interest, abilities, and special needs.
- Additional support staff, equipment modification, and remedial materials.
- Guidance, counseling, and career development activities conducted by a professionally trained counselor.
- Transitional plan development.
- Awareness of parents and students of vocational education opportunities.

Enrollment of disadvantaged students in separate vocational education programs totaled 41.

During 1991, two of the disadvantaged support service programs have been presented at regional and national conferences.

JOB TRAINING PARTNERSHIP ACT/PRIVATE INDUSTRY COUNCIL

JTPA Governor's Summer Youth Enhancement Program

The 1991 Governor's Summer Youth Enhancement Program (GSYEP) helped students succeed from June 25 through August 3 in 48 counties throughout the state. The program served approximately 1,566 at-risk students, 14 years of age through juniors in high school. Students improved math computation and reading comprehension skills through the integration of computer-assisted instruction and applied activities.

Career exploration and personal guidance were also vital components of GSYEP. Participants typically attended class four hours in the mornings and worked four hours in the afternoons, thus receiving only 24 hours of instruction in each of the four program components. The statewide results averaged a .8 grade level increase in reading and .9 grade level increase in math after participating in this six-week program.

JTPA Skills Training

Title IIA monies funded 50 programs in 32 counties providing 687 disadvantaged adult/youth students with skill training, remediation and job seeking/keeping skills. Training areas ranged from business technology and bank teller to licensed practical nurse (LPN), microcomputer repair and electro-magnetic technology.

Title III funds were utilized to provide 59 training programs in 31 counties in which 499 adult/youth displaced workers received instruction in diverse training areas ranging from auto mechanics technology, robotics, computer-assisted design, LPN, electronics technology, to business technology and electricity. These students received instruction in basic skills (as needed) and job-seeking skills.

JTPA Economic Development

Continuing a trend, placement rates were excellent in economic development for FY '91. Title IIA had a placement rate of 83 percent. Title III Governor's rate was 94 percent.

New occupational training was introduced in the past year for such diverse fields as information processing, microchip production, hardwood and furniture manufacturing, and developmental disabilities technician. Individual referral placement into existing classes was introduced to economic development to further assist business and industry in finding and hiring well-trained individuals.

Finally, economic development has been incorporated into the new Governor's Guaranteed Work Force Program which gives business and industry "one stop shopping" for new employees. This program incorporates funds from New and Expanding Industry Training (NEIT), Job Training Partnership Act (JTPA), On-the-Job Training (OJT), and Appalachian Regional Commission (ARC) for use in training West Virginians for jobs.

GUIDANCE/COUNSELING/JOB PLACEMENT

Guidance/Counseling

The statement of purpose in the Carl D. Perkins Vocational and Applied Technology Education Act sets forth an ambitious and important agenda for vocational education to help our nation meet the challenges it faces today and tomorrow, nationally and internationally. The following purposes focus on a number of important roles for guidance and vocational education personnel:

- Meeting the nation's need for qualified (productive) workers
- Responding to individuals of all ages and circumstances who require more programs and services
- Strengthening economically depressed communities
- Keeping vocational education relevant
- Responding to the nation's gender goals

Guidance assists individuals of all ages and circumstances in dealing effectively with their lifelong development, including occupational choice and job adjustment. Comprehensive programs of guidance and counseling serve as the link between providing occupational training and employment readiness, and for the eventual transition to and satisfaction in the workplace.

Guidance should be treated as a program that has characteristics similar to other programs in education and vocational education (including learner outcomes, activities and processes to assist learners to achieve these outcomes, professionally certified personnel, and materials and resources). Guidance and counseling (should be developmental and comprehensive) should focus on individual's competencies rather than on their deficiencies, should be built on a team approach, and must mandate articulation.

Job Placement

The job placement program is concerned with both employment and educational placement. The purpose of a fully-implemented program is to develop student skills over a period of time which results in self-placement.

All students benefit from the provision of a placement program. Even though students may not use the service solely for placement, the development of life skills related to the formulation of career plans, and those processes necessary to attain these plans, are relevant for all students. The direct placement of students by the school is but one criteria on which to judge the success or failure of this placement program. Students who participated in the program will be capable of self-placement in either employment or educational situations. The result is student assimilation of placement knowledge and skills that are adaptable to a variety of settings and remain relevant beyond the next assignment, test or grade.

A certainty is that the placement program cannot effectively function if program responsibility is subjected to isolation or turf protected by those staffing the program and conducting the related activities. The need for cooperation is apparent. Expecting one person to assume total control and responsibility for all phases of the program is unrealistic. Even those systems with full-time placement coordinators, teachers, counselors, administration, and community members provide valuable assistance.

In West Virginia last year the positive placement rate was as follows:

34.1%	Continued education
6.4%	Enrolled in military
29.7%	Employed in trained or related area
18.0%	Sought other employment
88.2	**TOTAL**

The positive benefits of the programs are not related so much by the number of direct student placements as by the development of students who are better prepared to help themselves during and after the transition from a student in an educational setting to an adult in a community and work environment.

SERVICES FOR PERSONS INCARCERATED IN CORRECTIONAL FACILITIES

With the adoption of Policy 1471, "Education in State Correctional Institutions," by the State Board of Education, the importance of education in the rehabilitation process of the offender population was affirmed. This policy provides direct services by the state education agency.

During FY '91, the Office of Interagency Education Programs (West Virginia Department of Education) accomplished the following:

- Secured funding from the School Building Authority for the construction of a metal trades building and an addition to the academic building at the Davis Center.
- Installed state-of-the-art, computer-assisted instruction programs in all institutions.
- Employed an educational diagnostician to operate an educational diagnostic process for juvenile offenders.

- Finalized plans for the construction of the new vocational/career exploration laboratory at the West Virginia Industrial Home for Youth.

- Finalized architectural plans for the academic and vocational education programs at the Mount Olive Correctional Complex.

- Continued the upgrading of vocational education programs and services through the modernization of equipment.

- Continued support for the inmate literacy tutoring programs at the West Virginia Penitentiary and the Huttonsville Correctional Center.

- Added social education programs in all facilities to teach offenders problem-solving skills and life-coping skills needed to become productive citizens.

As recognition of their efforts in the area of education, the Huttonsville Correctional Center staff received the 1990-91 Adult Education Program of the Year Award by the West Virginia Adult Education Association.

BASIC SKILLS

The demands of the ever-changing, technology-driven world of work and today's global economy require that vocational graduates demonstrate high levels of technical and academic skills. Students entering the job market must possess competencies in order to take advantage of postsecondary educational opportunities available through institutions of higher education or employee training programs. Recognizing the importance of the integration of basic academic skills into vocational education and applied instruction into the academic arena, the Division of Technical and Adult Education Services has undertaken a number of initiatives to help students succeed.

Basic Academic Skills for Employment (BASE), a computer software program, has been installed at 76 vocational-technical centers, adult learning centers, and high schools across the state. More than 140 teachers participated in BASE inservices that included hands-on activities. This software program has the capability to assess, diagnose, prescribe, remediate and evaluate the basic academic skills of each student. The skills evaluated and remediated, are those recognized by the world of business and academia as being fundamental to the successful performance in an occupational area chosen by the student.

Survey information collected during the spring of 1991, indicates that at least 3,195 secondary and adult students utilized BASE during the school term. The overall rating of the software by the majority of teachers using the software was high.

Three pilot sites in West Virginia completed their third year of involvement with the Southern Regional Education Board-State Vocational Education Consortium project. Information has been collected from each of the 16 states involved in the project to determine those materials most effective in meeting the needs of secondary students. Instructors and administrators in West Virginia, both vocational and academic, have conducted activities sharing relevant teaching techniques and strategies with teaching staff across the state.

A quality mathematics curriculum, Applied Mathematics, has been approved by the State Board of Education as meeting a mathematic requirement for high school graduation in this state. This curriculum was developed and piloted by the Center for Occupational Research and Development and the SREB-State Vocational Education Consortium. West Virginia is a member of this consortium.

Certified mathematics teachers from 36 schools in this state attended Applied Mathematics workshops during the summer. Twenty-seven of these schools received $1,500.00 from the Division of Technical and Adult Education Services to assist with program implementation costs.

INTEGRATION OF ACADEMIC AND VOCATIONAL EDUCATION

Significant progress has been made in raising the expectations and achievement levels of vocational students as a result of

participation in the Southern Regional Education Board's three pilot sites established in 1988. A great deal has been learned in terms of integrating academic and vocational studies through participation in this consortium effort. Particularly enlightening are the results of findings from the United Career Center (Harrison County), Randolph County Vocational-Technical Center and Wheeling Park High School (Ohio County).

The importance of a sound background in the academic subjects as the foundation for technical skill development is of great importance in today's technological workplace. Efforts designed to address this issue, however, must involve both academic and vocational teachers. Therefore, the following expected outcomes have been outlined for a successful integration of academic and vocational educational content areas.

- Increase the percentage of vocational completers who take higher level academic courses.
- Increase the time in vocational courses devoted to teaching and reinforcing the basic competencies that underlie the occupational field of study.
- Increase the amount of emphasis and instructional time devoted to applied learning in academic courses.
- Develop teams of vocational and academic teachers who coordinate instruction.
- Estimate specific academic and technical subject requirements for vocational completers.
- Provide four-year plans for all students.
- Provide vocational and academic teachers with staff development in reference to reinforcing academic skills and applied instructional approaches.
- Provide students with a planned and coordinated program of academic and vocational studies leading to continued learning and employment.

SERVICES TO BUSINESS AND INDUSTRY

The Governor's Guaranteed Work Force Program (GGWFP), a Division of the Governor's Office of Community and Industrial Development, is the state's business and industrial training program. The program has utilized state appropriated dollars to leverage federal and local monies in order to provide a "one-stop-center" for training as it relates to economic development. It is, as a result, one of the most aggressive state training programs in the nation.

The Governor's Guaranteed Work Force Program, through its one-stop-center approach, has maximized the state appropriated training money through a variety of sources, including federal Job Training Partnership Act funds administered by the Bureau of Employment Programs, and Vocational Education training funds administered by the Department of Education, and federal Perkins Act funds administered through the West Virginia Department of Education.

In addition, the program utilizes resources from the New and Expanding Industry Training funds; Business and Industry training funds; Appalachian Regional Commission funds; as well as the Private Industry Councils of West Virginia and the Department of Health and Human Services.

The funding flexibility available through the GGWFP is one of the state's strongest business development incentives and business retention assets. Companies must submit only one application to one agency, the GGWFP, to gain access to the state's entire training network. Guaranteed Work Force Program staff use the variety of available funding sources to customize training programs to address the specific needs of companies and workers.

During 1991, twenty-five counties were involved in a wide variety of training experiences which resulted in 5,628 participants being updated in new skill training. A sampling of the businesses and industries involved in the Governor's Guaranteed Work Force Program appears on the following page.

REPRESENTATIVE TRAINING FOR SERVICES TO BUSINESS AND INDUSTRY

Industry/Business	Site	Trainees
Old National Bank	Berkeley Co.	28
Union Carbide	Kanawha Co.	131
Pacific Encore East	Mercer Co.	716
Parkersburg Plumbers	Wood Co.	36
Ripley Apparel	Jackson Co.	154
Snowshoe Mountain	Pocahontas Co.	55

WEST VIRGINIA MICRO-COMPUTER EDUCATIONAL NETWORK

The West Virginia Microcomputer Educational Network has three major components: (1) the statewide telecommunications network, (2) 86 microcomputer local area network labs in secondary schools and vocational-technical centers, and (3) the concept and implementation of eight RESA computer technicians.

The West Virginia Microcomputer Educational Network statewide telecommunications has moved from its home in Ripley to Charleston. Because the network has grown so rapidly, the move was necessary to provide more up-to-date information in a shorter time span. The network is now operating on a larger hard drive with a faster operating system, and two CD ROM drives have been added to allow users to access over 5,000 public domain programs.

Anyone with a computer and modem may access the statewide network and communicate not only with others throughout the state, but also with people nationally and internationally. The numbers are 1-800-642-1982, 558-6327, 558-6329. Over 4,300 users now take advantage of this system to learn how to utilize telecommunications in the educational telecomputing method. They retrieve items from job postings, grants, educational calendar, other electronic bulletin board numbers, Computer Learning Month Information and winners, pen pal projects, upcoming teleconferences, legislative bills, Department of Culture and History events, and curriculum specific information, to name a few.

Users may also access over thirty conference areas and leave electronic mail about specific subjects including curriculum areas, student pen pals, help questions, for sale items, educational personnel development in RESAs, computer lab coordinators, Computer Learning Month, West Virginia Computer Using Educators, West Virginia Environmental Training Center, distance learning, college courses, and many others. These change according to user requests and needs.

Even though West Virginia was the first in the nation to develop this type of statewide network, others are just now understanding and advocating telecomputing as a basic skill. We have been providing training in this area since 1983 - and have been expanding.

WVMEN provides computers, printers, modems, and local area networks to 86 schools to provide basic computer literacy and occupational skills to students. Over 35,000 students, teachers, and business and community people have received training in these labs. The Department of Education was the first to license software on a statewide basis and continues to support schools by providing training to accompany new software. The Basic Academic Skills for Employment (BASE) software has been provided to a number of schools and adult basic education sites. This package will pretest, remediate, and post test students to ensure they have the basic skills for the selected occupational area.

PERSONNEL DEVELOPMENT

Priority Area Institutes and Teacher Preparation:

In FY '91, 55 institutes and workshops were conducted which served over 1,500 vocational and general education teachers statewide. Institutes were sponsored in the following six major categories: (1) basic skill, (2) instructional technology/telecommunications, (3) technical update, (4) computer applications, (5) adult education, (6) program planning and development. Major areas of emphasis in FY '91 were the integration of basic skills into vocational programs, use of instructional technology, and occupational updating.

Six teacher preparation programs and three preservice institutes supported in FY '91 in the areas of agriculture, business, technical and industrial, health occupations, occupational home economics, marketing, and diversified cooperative education. Work was completed on the criteria to be used for the Doctor of Education (Ed.D.) in Vocational, Technical, and Adult Education to become effective in the fall of 1992.

Technological Updating Workshops:

Technical update workshops were sponsored by business and industry on a statewide basis in such areas as new technology, flexible manufacturing, automotive electronics, culinary arts and the latest trends in health care. Workshops provide teachers with knowledge of today's workplace.

In FY '91, the division conducted the fifth annual academy for vocational administrators. The academy was held in collaboration with the "West Virginia Institutes for School Success." This was a collective effort of various state Department of Education personnel in providing state-sponsored professional growth activities.

The vocational administrator's academy stressed the need for continued progress in the area of school reform. Twenty-four vocational administrators attended the six-day workshop. In addition to the six-day residential workshop, vocational administrators attended three follow-up, one-and-a-half day workshops designed to promote a collaborative process for change involving all elements of the education community.

Training	Participants
• Public Service	22,000
• Hazardous Waste	1,233
• Pro-Board Examination	65
• Law Enforcement	549
• Environmental	633

TECH PREP ASSOCIATE DEGREE

The Carl D. Perkins Vocational and Applied Technology Education Act of 1990 gives secondary schools and community colleges a window of opportunity to strengthen the relationships between these two public education institutions.

Specifically, Tech Prep is intended for students who are completing an unchallenging, unfocused and unrewarding course of study referred to as "general education." Approximately 40 percent of West Virginia's public secondary students are enrolled within general education.

In contrast to the course of study called general education, Tech Prep is an educational pathway specifically designed to assure that high school students acquire more technically oriented knowledge and skills. Tech Prep unfolds logically as a coordinated and sequentially organized set of academic and vocational courses. As a result of applied courses and other technical elements, specialized competencies are attained at the secondary level which form the foundation for continuing study at the two-year associate degree level.

The Tech Prep model provides technical preparation to students with involvement from business and industry. When Tech Prep is implemented, these outcomes will be manifested:

- The labor pool will be enriched with technically skilled workers.

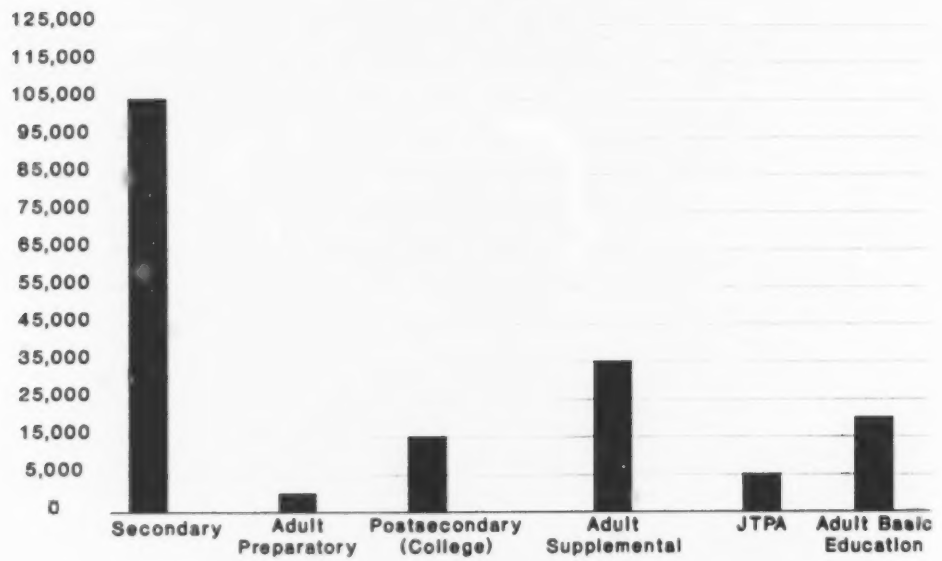
- Course offerings will reflect the new technological career paths.

VOCATIONAL ENROLLMENTS BY LEVEL OF INSTRUCTION

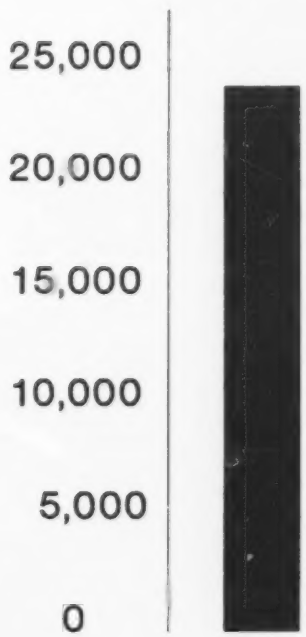
	1991*	Secondary	Adult Prepara-tory	Post-secondary (College)	Adult Supple-mental
Agricultural Education	6,068	5,300	39	127	602
Marketing Education	10,359	2,920	53	1,244	6,142
Health Occupations Education	7,700	1,224	1,110	4,609	757
Consumer & Homemaking Education	35,026	32,505			2,521
Occupational Home Economics Education	1,712	992	72	620	28
Business Education	36,888	23,193	660	6,075	6,960
Technical Education	4,585	750	233	3,346	256
Trade & Industrial Education	15,804	9,961	1,238	522	4,083
Technology Education	20,142	20,095			47
Career Exploration	6,732	6,732			
Special Programs	1,579	1,429			150
Adult Basic Education	23,077				23,077
JTPA	5,103	3,876	1,227		
Public Service	22,202				22,202
TOTAL	**196,977**	**108,977**	**4,632**	**16,543**	**66,825**

* *Includes Miner Orientation and New and Expanding Industry Training.*

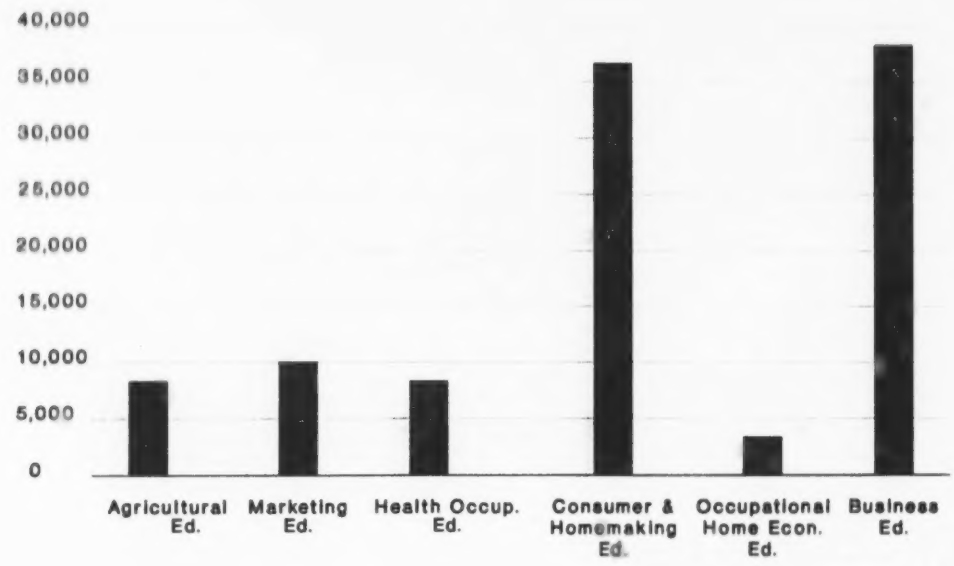
VOCATIONAL ENROLLMENTS
FY 91



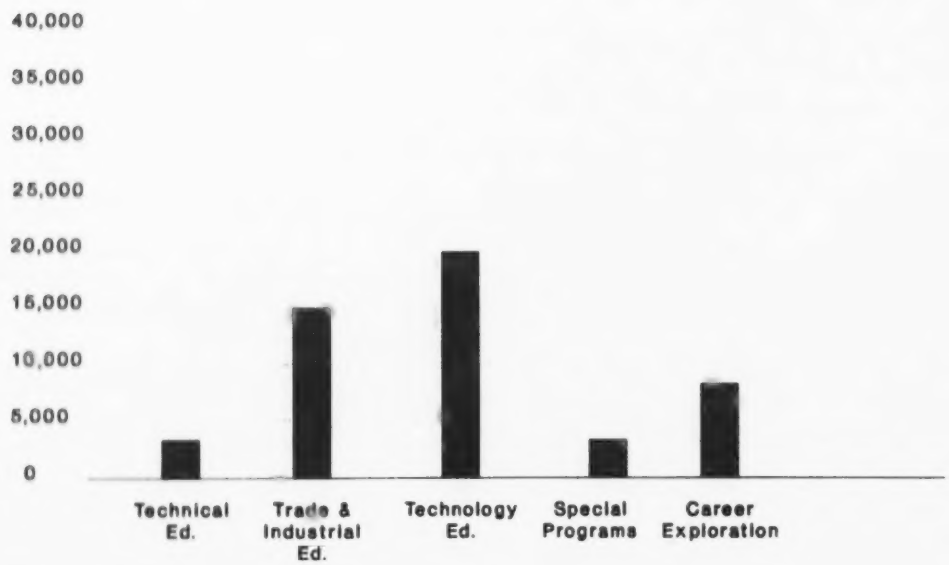
ADULT BASIC EDUCATION ENROLLMENT
FY 91



VOCATIONAL ENROLLMENTS
FY 91



VOCATIONAL ENROLLMENTS - Part 2
FY 91



THE WEST VIRGINIA JOINT COMMISSION FOR VOCATIONAL-TECHNICAL-OCCUPATIONAL EDUCATION

The West Virginia Joint Commission for Vocational-Technical-Occupational Education was created in 1989 as part of Governor Gaston Caperton's education reform program. Specifically, Senate Bill 420, Reorganization of Higher Education, provided for the appointment of a 13-member commission whose major mission is to bring about articulation agreements and coordination of program delivery systems among the community colleges and the public vocational-technical centers and the high schools.

The members of the Joint Commission are:

- Dr. Gregory Adkins
  President
  Bluefield State College
  Bluefield, WV 24701

- Virgil Cook
  Member, WV Board of Education
  55 Matherly Drive
  Daniels, WV 25832

- Dennis Davis
  Assistant Superintendent
  Vocational Education
  Kanawha County Schools
  200 Elizabeth Street
  Charleston, WV 25311

- Rev. Paul J. Gilmer
  Director, OIC
  737 Virginia Street, West
  Charleston, WV 25302

- Richard J. Glass, Jr.
  P. O. Box 184
  Arthurdale, WV 26520

- Robert Kittle*
  Superintendent
  Harrison County Schools
  P. O. Box 1370
  Clarksburg, WV 26301

- J. Michael Koon
  Weirton Campus Executive Dean
  150 Park Avenue
  Weirton, WV 26062

- Jim Pennington
  President of Benefit Services
  McDonough-Caperton
  P. O. Box 1551
  Charleston, WV 25326-1551

- Bobby Thompson
  Charleston Building & Construction Trades Council
  2301 7th Avenue
  Charleston, WV 25302

- Joanne Tomblin
  Assistant to the President
  Southern WV Community College
  Logan, WV 25601

- Gary White**
  President WV Coal Association
  1301 Laidley Tower
  Charleston, WV 25301

- Stephen A. Callen, Sr.
  President, WV Career College, Inc.
  144 Wiley Street
  Morgantown, WV 26505

- Vacant
  Agriculture Representative

Ex Officio Members

- Dr. Henry Marockie
  State Superintendent of Schools
  Building 6, Room B-358
  1900 Kanawha Boulevard, East
  Charleston, WV 25305

- Dr. M. Douglas Call
  Vice Chancellor of Community Colleges
  1018 Kanawha Boulevard, East
  Suite 700
  Charleston, WV 25301

- **Executive Director, Joint Commission**
  Saundra Perry
  1018 Kanawha Boulevard, East
  Suite 700
  Charleston, WV 25301

* Vice President of Joint Commission

** President of Joint Commission

Henry R. Marockie
State Superintendent of Schools